

In the Claims:

1. (Currently Amended) An under voltage detection (UVD) circuit for monitoring a supply voltage, the circuit comprising and which includes:

a comparator for generating a shortfall signal indicative of a shortfall of the supply voltage in relation to a reference voltage, and

an integrator for time-integrating the shortfall signal to form an integrated signal,

wherein the output of the integrator is used to generate a reset signal for resetting a microprocessor.

2. (Original) A UVD circuit according to claim 1 further including a discriminator circuit for receiving the integrated signal and at least one further output of the comparator, and generating a reset signal using the integrated signal and the at least one further output.

3. (Original) A UVD circuit according to claim 2 in which the discriminator circuit is arranged to receive a control signal, the discriminator circuit further comprising a switch controlled by the control signal for determining whether the reset signal is generated based on the integrated signal or the at least one further output signal.

4. (Currently Amended) A microprocessor comprising:
incorporating an under voltage detection (UVD) circuit according to any preceding claim that includes a comparator for generating a shortfall signal indicative of a shortfall of the supply voltage in relation to a reference voltage, and an integrator for time-integrating the shortfall

signal to form an integrated signal, wherein the output of the integrator is used to generate a reset signal for resetting the microprocessor, and

reset means arranged to receive the reset signal output by the UVD circuit and according to its value to initiate a reset of the microprocessor.

5. (Currently Amended) A method of monitoring a supply voltage including:

generating a shortfall signal indicative of a shortfall of the supply voltage in relation to a reference voltage;

time-integrating the shortfall signal to form an integrated signal; and

generating a reset signal using the shortfall signal, wherein the reset signal is for resetting a microprocessor.

6. (New) The method of claim 5 and further comprising resetting the microprocessor with the reset signal.

7. (New) The microprocessor according to claim 4 wherein the UVD circuit further includes a discriminator circuit for receiving the integrated signal and at least one further output of the comparator, and generating a reset signal using the integrated signal and the at least one further output.

8. (New) The microprocessor according to claim 7 in which the discriminator circuit is arranged to receive a control signal, the discriminator circuit further comprising a switch

controlled by the control signal for determining whether the reset signal is generated based on the integrated signal or the at least one further output signal.